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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LEE, BENJAMIN P

ART UNIT PAPER NUMBER

3641

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/773,500

Applicant(s)

CURRY ET AL.

Examiner

Benjamin P. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 6-9, 12-14, 16-19, 24 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,10,11,15,20-23 and 25-27 is/are rejected.
- 7) ☒ Claim(s) 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 2-4, 6-9, 12-14, 16-19, 24 and 28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made with traverse in the reply filed on 9/28/2006. Claims 7-9, 18 and 19 depend from non-elected claims and therefore are also withdrawn. Since independent claims 1 and 11 are elected by applicant as a single species and corresponding non-elected dependent claim 6 and elected claim 16 are identical, it is assumed that claim 16 is also a distinct species and is therefore withdrawn.

2. Claims 1, 5, 10, 11, 15, 20-23 and 25-27 have been examined.

### ***Claim Objections***

3. Claim 27 is objected to because of the following informalities: Claim 27 depends from subsequent claim 28. Examiner assumes that applicant intends claim 27 to depend from 26. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 25 recites the limitation "tensioning means" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kleinguenther et al. (U.S. Patent 5305677).

7. In regards to claim 1, Kleinguenther et al disclose the following:

- a. a barrel having a longitudinal bore and defining thereby a firing axis (item 1 of fig. 2 following);
- b. a compensator assembly including an attaching means for releasably attaching said compensator assembly adjacent a muzzle end of said barrel (col. 3, lines 18-25). Note that applicant fails to explicitly disclose in the specification what the "attaching means" are comprised of, so any "attaching means" disclosed by Kleinguenther et al that releasably

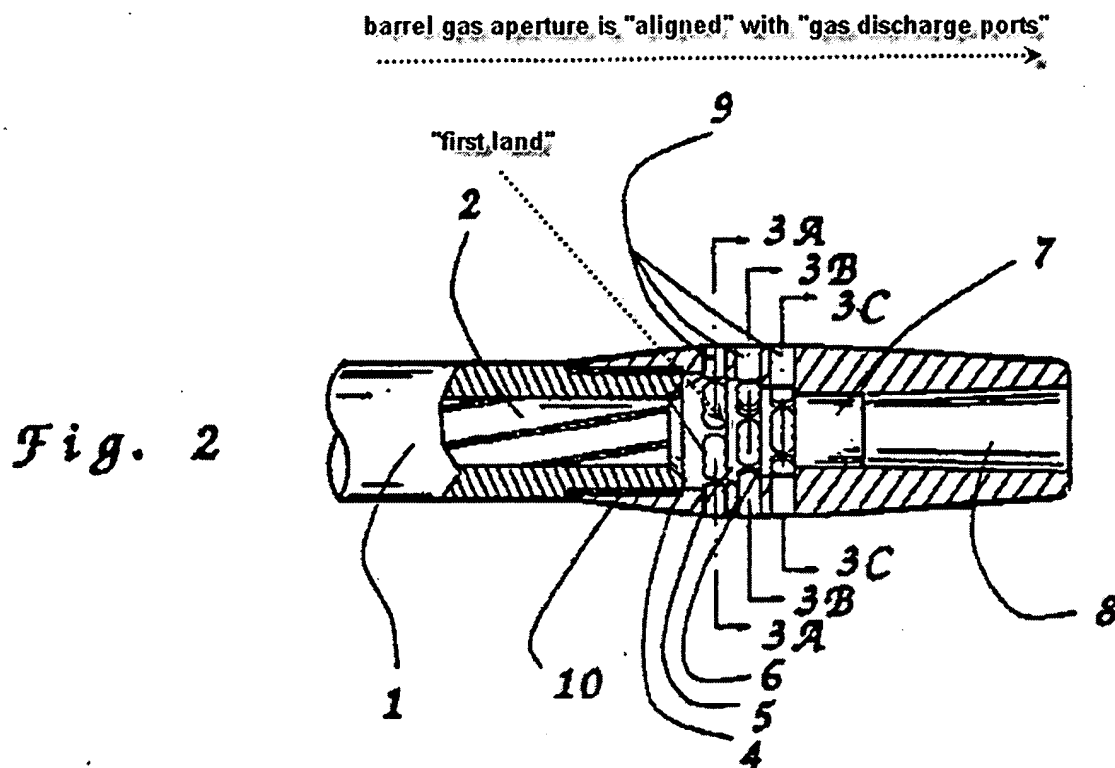
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attaches a compensator assembly adjacent a muzzle end of barrel is sufficient;

- c. a gas discharge port formed in said compensator assembly (items 9 of fig. 2 following);
- d. gas discharge port not being aligned with said longitudinal bore and communicating with an inner bore of said compensator assembly (see fig. 2 following). Note that the compensator walls define an inner bore and the exhaust ports are "communicating" with this inner bore.

8. In regards to claim 5, Kleinguenther et al disclose that the barrel includes a recess formed therein and said attachment means is configured to be releasably accepted within said recess (item 10 of fig. 2 following and col. 3, lines 18-20). Note that the threaded section constitutes a "recess" and the compensator attachment means is configured to be releasably accepted (screwed) within the recess in the barrel.

9. In regards to claim 10, Kleinguenther et al disclose that the barrel includes a gas aperture which is aligned with said gas discharge port when said compensator assembly is attached adjacent said muzzle end of said barrel (see fig. 2 following). Note that the barrel includes a muzzle that constitutes a "gas aperture" and that this aperture is "aligned" with the "gas discharge port" (items 9 of fig. 2 following).



10. Claims 11 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Leffel et al. (U.S. Patent 4691614).

11. In regards to claim 11, Leffel et al disclose a compensation system for a firearm, said compensation system comprising the following:

- a. a shroud defining a longitudinal bore adapted to receive a barrel therein and the shroud having a firing axis (see fig. 1 following);
- b. a compensator assembly including an attaching means for releasably attaching said compensator assembly adjacent a muzzle end of said

shroud (see fig. 3 following). Note that the "compensator" is attached to shroud via the barrel being screwed into the compensator;

- c. a gas discharge port formed in said compensator assembly, said gas discharge port not being aligned with said longitudinal bore and communicating with an inner bore of said compensator assembly (items 18A and 18B of fig. 3 following). Note that the discharge ports are in communication with the barrel bore (inner bore) of compensator.

12. In regards to claim 21, Leffel et al disclose a compensation system for a firearm, said compensation system comprising the following:

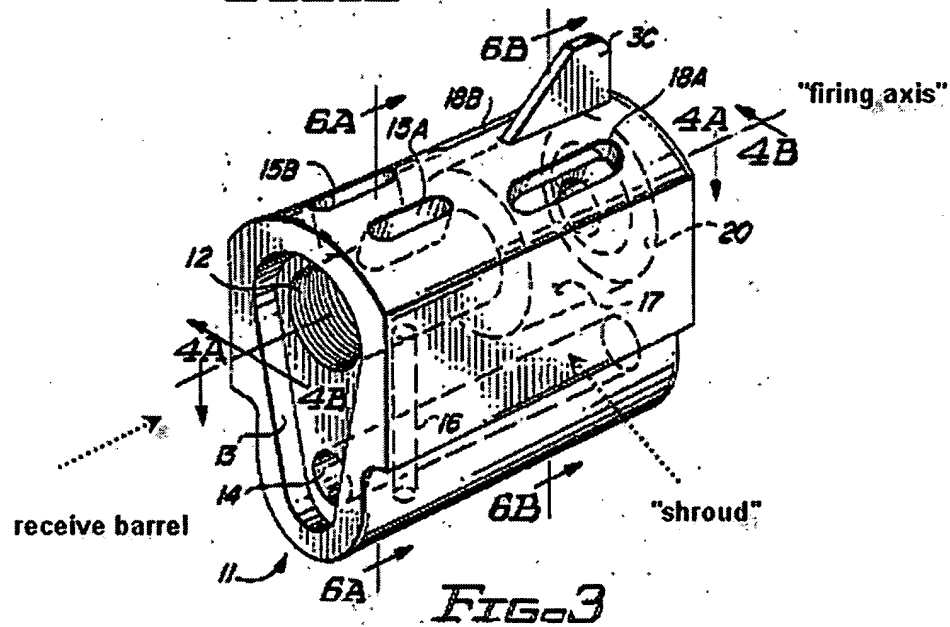
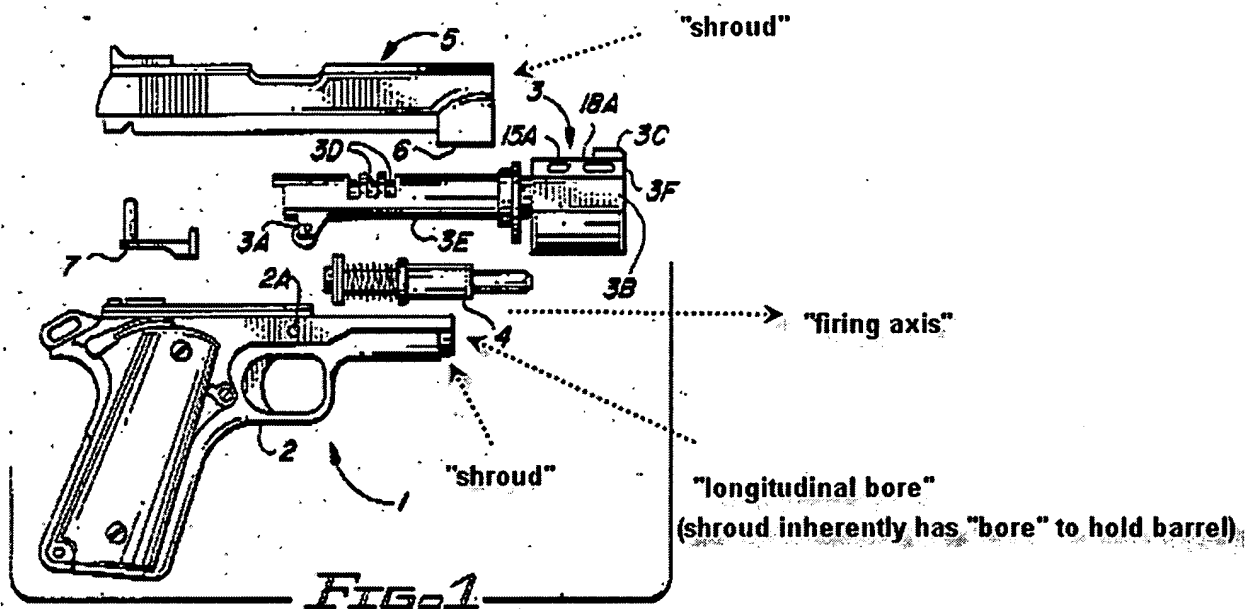
- a. a shroud having a longitudinal bore (see fig. 1 following);
- b. a barrel releasably housed within said shroud and defining thereby a firing axis (item 8 of fig. 2 following), said barrel including a flange disposed on a distal end of said barrel (item 3A of fig. 2 following) for arresting a longitudinal translation of said barrel within said longitudinal bore. Note that item 3A of figure 2 constitutes a "flange" to the degree specified by applicant in that it is a protrusion from the barrel and is capable of arresting longitudinal translation of the barrel;
- c. a compensator assembly including an attaching means for releasably attaching said compensator assembly adjacent a muzzle end of said barrel (see fig. 3 following). Note that the threaded recess is the "attaching

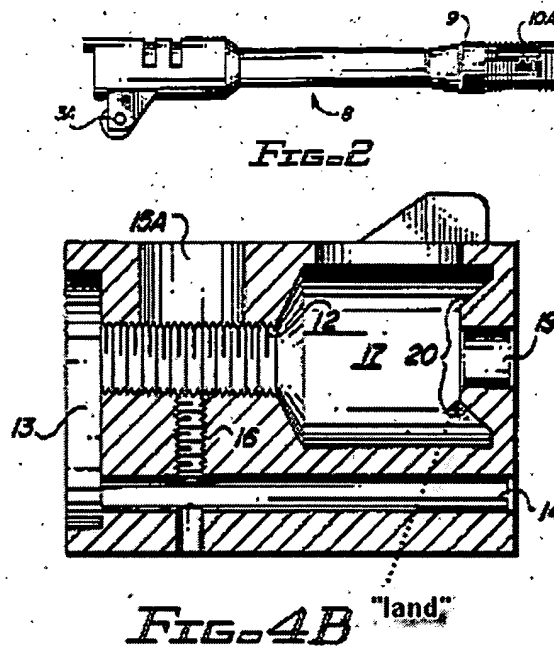
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means" for releasably attaching the compensator, since applicant fails to specifically define "attaching means" in the disclosure;

- d. a gas discharge port formed in said compensator assembly (items 15A and 15B of fig. 3 following), said gas discharge port not being aligned with said longitudinal bore and communicating with an inner bore of said compensator assembly (see fig. 3 following).







### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 15 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leffel et al. (U.S. Patent 4691614) in further view of Holloway et al. (U.S. Patent 6482248).

In regards to claims 11, 21 and 22, Leffel et al disclose a compensation system for a firearm, said compensation system comprising the following:

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- a. a compensator assembly including an attaching means for releasably attaching said compensator assembly adjacent a muzzle end of said shroud (see fig. 3 following). Note that the "compensator" is attached to shroud via the barrel being screwed into the compensator, so the female threads of the compensator assembly constitute the "attachment means";
- b. a gas discharge port formed in said compensator assembly, said gas discharge port not being aligned with said longitudinal bore and communicating with an inner bore of said compensator assembly (items 18A and 18B of fig. 3 following). Note that the discharge ports are in communication with the barrel bore (inner bore) of compensator.

Leffel et al fail to disclose a shroud defining a longitudinal bore adapted to receive a barrel therein and the shroud having a firing axis. However, Holloway et al disclose an outer carbon fiber composite liner (item 16 of fig. 1D following) on a barrel (item 10 of fig. 1D following) constituting a "shroud". It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate a liner "shroud" on the outer surface of the barrel, because composite liners increase the thermal conductivity and yield strength of barrels.

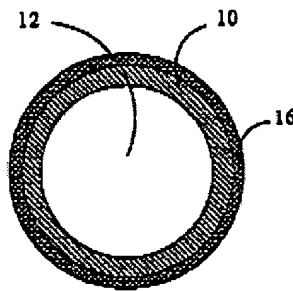
- c. shroud includes a recess formed therein (see Leffel et al fig. 2 following). Note that the carbon fiber composite liner "shroud" would incorporate a threaded section (see Leffel et al fig. 2 following) "recess";

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- d. attachment means is configured to be releasably accepted within recess.

Note that the female threads "attachment means" are "accepted within" the male threads which constitute a "recess".

- e. a barrel releasably housed within the shroud (item 8 of fig. 2 following) and defining a firing axis, the barrel including a flange disposed on a distal end of the barrel (item 3A of fig. 2 following) for arresting a longitudinal translation or the barrel within the longitudinal bore. Note that item 3A of figure 2 constitutes a "flange" to the degree specified by applicant in that it is a protrusion from the barrel and is capable of arresting longitudinal translation of the barrel.



**FIG. 1D**

13. In regards to claim 15, Leffel et al in combination with Holloway et al disclose a shroud with a recess (see threaded portion of barrel in Leffel et al fig. 2 following). Note that the combination of Leffel et al and Holloway et al is a barrel with carbon fiber composite liner "shroud" and a threaded portion "recess".

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14. In regards to claim 20, Leffel et al disclose the shroud includes a gas aperture (item 10A of Leffel fig. 2 following) which is aligned with the gas discharge port when the compensator assembly is attached adjacent the muzzle end of the barrel (col. 3, lines 1-5).

15. In regards to claim 23, Leffel et al disclose a tensioning means for selectively preloading the attachment means within the recess in a direction substantially parallel to the firing axis. Note that Leffel et al disclose that the compensator assembly is "screwed" on via the "attachment means". This apparatus to include a female and male threaded attachment means inherently includes a "tensioning" means.

#### ***Allowable Subject Matter***

Claims 25-27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Summary/Conclusion***

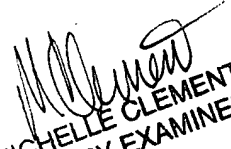
16. Claims 1, 5, 10, 11, 15, 20-23 and 25-27 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin P. Lee whose telephone number is 571-272-

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8968. The examiner can normally be reached between the hours of 8:30am and 5:00pm on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MICHELLE CLEMENT  
PRIMARY EXAMINER